

ASAP  
Work Order ID 99160

\*99160\*

Page 1

March-28-13 12:55:21 PM

Item ID: D3849-3

Accept

\*N900040100\*

Setup

Start

\*NS1\*

Revision ID:

Item Name: Plate

Stop

\*NS2\*

Start Date: 3/26/13 Start Qty: 6.00

\*6\*

Cust Item ID:

Required Date: 3/27/13 Req'd Qty: 6.00

\*6\*

Customer:

Reference:

Approvals: Process Plan: MUS

Date: 13-04-02 Tooling:

Date:

Run

Start

\*NR1\*

QC: \_\_\_\_\_

Date: \_\_\_\_\_ SPC (Y/N):

Date: \_\_\_\_\_

Stop

\*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| Draw Nbr | Revision Nbr |
|----------|--------------|
|----------|--------------|

|       |   |
|-------|---|
| D3849 | D |
|-------|---|

|     |      |
|-----|------|
| 100 | 0.00 |
|-----|------|

\*100\*  
Waterjet

FLOW CNC Waterjet

304.050

Memo 0.00

1-Cut as per Dwg D3849

Dwg Rev: 0

Prog Rev: 0

2-Deburr if necessary

6 0 Jm13-5-22

|     |   |      |
|-----|---|------|
| 110 | QC2- Inspect parts off machine FAI/FAIB | 0.00 |
|-----|---|------|

\*110\*  
QC

Quality Control

Memo 0.00

6 0 Jm13-5-22

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Date:

|  |  |      |      |   |  |  |  |   |             |  |              |
|--|--|------|------|---|--|--|--|---|-------------|--|--------------|
| Work Order: _____<br>Part No. _____<br>NCR No. _____   |  |      |      | DISPOSITION   |  | AGAINST DEPARTMENT/PROCESS   |  |   |             |  |              |
|  |  |      |      | Rework<br>Scrap<br>Use-as-is<br>Work Order Update   | Skid-tube<br>Machining<br>Thermoforming<br>Large Fab | Crosstube<br>Small Fab<br>Finishing<br>Composite   | Water Jet<br>Prod. Eng. Coor.<br>Rec/Store/Packaging<br>Supplier | Engineering<br>Quality<br>Other   |             |  |              |
| Root Cause   |  | Date | Step | Qty   | Description of work order update or Non-conformance  |  | Initial Chief Eng  | Action Description  | Sign & Date | Verification   | QC Inspector |
| Doc/Data   |  |      |      |   |  |  |  |   |             |  |              |
| Equip/Tooling  |  |      |      |   |  |  |  |   |             |  |              |
| Operator   |  |      |      |   |  |  |  |   |             |  |              |
| Material   |  |      |      |   |  |  |  |   |             |  |              |
| Setup  |  |      |      |   |  |  |  |   |             |  |              |
| Other  |  |      |      |   |  |  |  |   |             |  |              |
| Process  |  |      |      |   |  |  |  |   |             |  |              |
| Supplier   |  |      |      |   |  |  |  |   |             |  |              |
| Training   |  |      |      |   |  |  |  |   |             |  |              |
| Unapproved   |  |      |      |   |  |  |  |   |             |  |              |
| <b>FAULT CATEGORY</b>  |  |      |      |   |  |  |  |   |             |  |              |
| Landing Gear<br>Bending<br>Centre Not Concentric to O/S<br>Cracks<br>Crushed/Crimped.<br>Cuffs<br>Heat Treat<br>Inspection Strip in Tube<br>Ripples in Bend<br>Torque Waves in Extrusion<br>Turning Sequence<br>Wave/Twist in Tube |  |      |      | General<br>Bend<br>BOM/Route<br>Broken/Damaged<br>Burrs<br>Contamination<br>Countersink<br>Cut Too Short<br>Drill Holes<br>Drawing<br>Finish<br>Folio |  | Grain<br>Hardware<br>Inspection Incomplete<br>Instructions Incomplete/Unclear<br>Maintenance<br>Mislabeled<br>Misread<br>Offset<br>Out of Calibration<br>Out of Sequence<br>Outside Dimensions |  | Ovalized<br>Over/Under tolerance<br>Part Incorrect<br>Part Lost/Missing<br>Part Moved<br>Positioned Wrong<br>Power Loss/Surge |             | Pressure/Forced<br>Temperature/Cure<br>Weld<br>Wrong Stock Pulled<br><br>Other |              |

Work Order ID 99160

\*99160\*

Page 2

March-28-13 12:55:21 PM

Item ID: D3849-3

Accept

\*N900040100\*

Setup

Start

\*NS1\*

Revision ID:

Item Name: Plate

Stop

\*NS2\*

Start Date: 3/26/13 Start Qty: 6.00

\*6\*

Cust Item ID:

Required Date: 3/27/13 Req'd Qty: 6.00

\*6\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120

\*120\*

QC

Quality Control

QC8- Inspect parts - second check

0.00

21

B-S-22

130

\*130\*

Brake NC

Brake NC

Memo

0.00

6

SB  
3/5/23

210

\*210\*

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

21

B-S-24

6

SB  
3/5/23

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| Work Order: _____  |      |      | DISPOSITION   |  |  | AGAINST DEPARTMENT/PROCESS   |   |              |              |  |  |
|--|------|------|---|--|--|--|---|--------------|--------------|--|--|
|  |      |      | Rework<br><input type="checkbox"/><br>Scrap<br><input type="checkbox"/><br>Use-as-is<br><input type="checkbox"/><br>Work Order Update<br><input type="checkbox"/> | Skid-tube<br><input type="checkbox"/><br>Machining<br><input type="checkbox"/><br>Thermoforming<br><input type="checkbox"/><br>Large Fab<br><input type="checkbox"/>   | Crosstube<br><input type="checkbox"/><br>Small Fab<br><input type="checkbox"/><br>Finishing<br><input type="checkbox"/><br>Composite<br><input type="checkbox"/> | Water Jet<br><input type="checkbox"/><br>Prod. Eng. Coor.<br><input type="checkbox"/><br>Rec/Store/Packaging<br><input type="checkbox"/><br>Supplier<br><input type="checkbox"/> | Engineering<br><input type="checkbox"/><br>Quality<br><input type="checkbox"/><br>Other<br><input type="checkbox"/> |              |              |  |  |
| Root Cause   | Date | Step | Qty   | Description of work order update or Non-conformance  | Initial Chief Eng  | Action Description   | Sign & Date   | Verification | QC Inspector |  |  |
| Doc/Data   |      |      |   |  |  |  |   |              |              |  |  |
| Equip/Tooling  |      |      |   |  |  |  |   |              |              |  |  |
| Operator   |      |      |   |  |  |  |   |              |              |  |  |
| Material   |      |      |   |  |  |  |   |              |              |  |  |
| Setup  |      |      |   |  |  |  |   |              |              |  |  |
| Other  |      |      |   |  |  |  |   |              |              |  |  |
| Process  |      |      |   |  |  |  |   |              |              |  |  |
| Supplier   |      |      |   |  |  |  |   |              |              |  |  |
| Training   |      |      |   |  |  |  |   |              |              |  |  |
| Unapproved   |      |      |   |  |  |  |   |              |              |  |  |
| FAULT CATEGORY   |      |      |   |  |  |  |   |              |              |  |  |
| <b>Landing Gear</b><br><input type="checkbox"/> Bending<br><input type="checkbox"/> Centre Not Concentric to O/S<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crushed/Crimped.<br><input type="checkbox"/> Cuffs<br><input type="checkbox"/> Heat Treat<br><input type="checkbox"/> Inspection Strip in Tube<br><input type="checkbox"/> Ripples in Bend<br><input type="checkbox"/> Torque Waves in Extrusion<br><input type="checkbox"/> Turning Sequence<br><input type="checkbox"/> Wave/Twist in Tube |      |      |   | <b>General</b><br><input type="checkbox"/> Bend<br><input type="checkbox"/> BOM/Route<br><input type="checkbox"/> Broken/Damaged<br><input type="checkbox"/> Burrs<br><input type="checkbox"/> Contamination<br><input type="checkbox"/> Countersink<br><input type="checkbox"/> Cut Too Short<br><input type="checkbox"/> Drill Holes<br><input type="checkbox"/> Drawing<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Folio<br><input type="checkbox"/> Grain<br><input type="checkbox"/> Hardware<br><input type="checkbox"/> Inspection Incomplete<br><input type="checkbox"/> Instructions Incomplete/Unclear<br><input type="checkbox"/> Maintenance<br><input type="checkbox"/> Mislabeled<br><input type="checkbox"/> Misread<br><input type="checkbox"/> Offset<br><input type="checkbox"/> Out of Calibration<br><input type="checkbox"/> Out of Sequence<br><input type="checkbox"/> Outside Dimensions |  |  |   |              |              |  |  |
|  |      |      |   | <input type="checkbox"/> Ovalized<br><input type="checkbox"/> Over/Under tolerance<br><input type="checkbox"/> Part Incorrect<br><input type="checkbox"/> Part Lost/Missing<br><input type="checkbox"/> Part Moved<br><input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Power Loss/Surge<br><input type="checkbox"/> Other   |  |  |   |              |              |  |  |
|  |      |      |   | <input type="checkbox"/> Pressure/Forced<br><input type="checkbox"/> Temperature/Cure<br><input type="checkbox"/> Weld<br><input type="checkbox"/> Wrong Stock Pulled  |  |  |   |              |              |  |  |

Work Order ID 99160

\*99160\*

March-28-13 12:55:21 PM

Page 3

Item ID: D3849-3

Accept

\*N900040100\*

Setup

Start

\*NS1\*

Revision ID:

Item Name: Plate

Stop

\*NS2\*

Start Date: 3/26/13 Start Qty: 6.00

\*6\*

Cust Item ID:

Required Date: 3/27/13 Req'd Qty: 6.00

\*6\*

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

220

Identify as per dwg & Stock Location: WA001

0.00

\*220\*

Packaging

Packaging

6

13-05-24 MAC

230

QC21- Final Inspection - Work Order Release

0.00

13/5/27/13

\*230\*

QC

Quality Control

Memo

0.00

AB 05-24

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| Work Order: _____<br>Part No. _____<br>NCR No. _____  |                          |      |      | DISPOSITION  |  | AGAINST DEPARTMENT/PROCESS  |  |  |  |             |              |  |   |                                |
|---|--------------------------|------|------|--|--|---|--|--|--|-------------|--------------|--|---|--------------------------------|
|   |                          |      |      | Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Work Order Update <input type="checkbox"/>  | Skid-tube <input type="checkbox"/><br>Machining <input type="checkbox"/><br>Thermoforming <input type="checkbox"/><br>Large Fab <input type="checkbox"/> | Crosstube <input type="checkbox"/><br>Small Fab <input type="checkbox"/><br>Finishing <input type="checkbox"/><br>Composite <input type="checkbox"/>  | Water Jet <input type="checkbox"/><br>Prod. Eng. Coor. <input type="checkbox"/><br>Rec/Store/Packaging <input type="checkbox"/><br>Supplier <input type="checkbox"/> | Engineering <input type="checkbox"/><br>Quality <input type="checkbox"/><br>Other <input type="checkbox"/> |  |             |              |  |   |                                |
| Root Cause  |                          | Date | Step | Qty  | Description of work order update or Non-conformance  |   | Initial Chief Eng  | Action Description   |  | Sign & Date | Verification | QC Inspector   |   |                                |
| Doc/Data  | <input type="checkbox"/> |      |      |  |  |   |  |  |  |             |              |  |   |                                |
| Equip/Tooling   | <input type="checkbox"/> |      |      |  |  |   |  |  |  |             |              |  |   |                                |
| Operator  | <input type="checkbox"/> |      |      |  |  |   |  |  |  |             |              |  |   |                                |
| Material  | <input type="checkbox"/> |      |      |  |  |   |  |  |  |             |              |  |   |                                |
| Setup   | <input type="checkbox"/> |      |      |  |  |   |  |  |  |             |              |  |   |                                |
| Other   | <input type="checkbox"/> |      |      |  |  |   |  |  |  |             |              |  |   |                                |
| Process   | <input type="checkbox"/> |      |      |  |  |   |  |  |  |             |              |  |   |                                |
| Supplier  | <input type="checkbox"/> |      |      |  |  |   |  |  |  |             |              |  |   |                                |
| Training  | <input type="checkbox"/> |      |      |  |  |   |  |  |  |             |              |  |   |                                |
| Unapproved  | <input type="checkbox"/> |      |      |  |  |   |  |  |  |             |              |  |   |                                |
| FAULT CATEGORY  |                          |      |      |  |  |   |  |  |  |             |              |  |   |                                |
| Landing Gear<br><input type="checkbox"/> Bending<br><input type="checkbox"/> Centre Not Concentric to O/S<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crushed/Crimped.<br><input type="checkbox"/> Cuffs<br><input type="checkbox"/> Heat Treat<br><input type="checkbox"/> Inspection Strip in Tube<br><input type="checkbox"/> Ripples in Bend<br><input type="checkbox"/> Torque Waves in Extrusion<br><input type="checkbox"/> Turning Sequence<br><input type="checkbox"/> Wave/Twist in Tube |                          |      |      | General<br><input type="checkbox"/> Bend<br><input type="checkbox"/> BOM/Route<br><input type="checkbox"/> Broken/Damaged<br><input type="checkbox"/> Burrs<br><input type="checkbox"/> Contamination<br><input type="checkbox"/> Countersink<br><input type="checkbox"/> Cut Too Short<br><input type="checkbox"/> Drill Holes<br><input type="checkbox"/> Drawing<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Folio |  | <input type="checkbox"/> Grain<br><input type="checkbox"/> Hardware<br><input type="checkbox"/> Inspection Incomplete<br><input type="checkbox"/> Instructions Incomplete/Unclear<br><input type="checkbox"/> Maintenance<br><input type="checkbox"/> Mislabeled<br><input type="checkbox"/> Misread<br><input type="checkbox"/> Offset<br><input type="checkbox"/> Out of Calibration<br><input type="checkbox"/> Out of Sequence<br><input type="checkbox"/> Outside Dimensions |  |  |  |             |              | <input type="checkbox"/> Ovalized<br><input type="checkbox"/> Over/Under tolerance<br><input type="checkbox"/> Part Incorrect<br><input type="checkbox"/> Part Lost/Missing<br><input type="checkbox"/> Part Moved<br><input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Power Loss/Surge | Pressure/Forced<br>Temperature/Cure<br>Weld<br>Wrong Stock Pulled | <input type="checkbox"/> Other |

# Picklist Print

March-28-13 12:55:21 PM

Page 1

Work Order ID: 99160

Parent Item: D3849-3

Parent Item Name: Plate

Start Date: 3/26/13

Required Date: 3/27/13

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP RevA: New issue DD verified by:EC  
REV.D DD VERF:JLM

IPP Rev:B 12.09.11 AS PER DWG

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty   | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|----------------|---------------|----------------|--------|
| M304S18GA<br>304/316 .050 Sheet |                        | Purchased     | No          |                     |                  | 100             | sf                 | 315.3699       | 3.585       | 22642105<br>23 |               |                |        |

| Location      | Loc Qty   | Loc Code |
|---------------|-----------|----------|
| MAT019        | 221       |          |
| 117188        | 5         |          |
| 117766        | 5         |          |
| 120604        | 5         |          |
| 122325        | 3         |          |
| 123155        | 3         |          |
| 124572        | 200       |          |
| MAT020 125552 | 94.369894 | 125552   |
| 120243        | 2         |          |
| 121626        | 1.529894  |          |
| 124029        | 90.84     |          |

Jm 3-5-22

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| Work Order: _____   |      |      | DISPOSITION                                       |  | AGAINST DEPARTMENT/PROCESS                       |  |                                 |              |              |  |
|---|------|------|---|--|--|--|---------------------------------|--------------|--------------|--|
| Part No. _____  |      |      | Rework<br>Scrap<br>Use-as-is<br>Work Order Update | Skid-tube<br>Machining<br>Thermoforming<br>Large Fab   | Crosstube<br>Small Fab<br>Finishing<br>Composite | Water Jet<br>Prod. Eng. Coor.<br>Rec/Store/Packaging<br>Supplier | Engineering<br>Quality<br>Other |              |              |  |
| NCR No. _____   |      |      |   |  |  |  |                                 |              |              |  |
| Root Cause  | Date | Step | Qty   | Description of work order update or Non-conformance  | Initial Chief Eng                                | Action Description   | Sign & Date                     | Verification | QC Inspector |  |
| Doc/Data  |      |      |   |  |  |  |                                 |              |              |  |
| Equip/Tooling   |      |      |   |  |  |  |                                 |              |              |  |
| Operator  |      |      |   |  |  |  |                                 |              |              |  |
| Material  |      |      |   |  |  |  |                                 |              |              |  |
| Setup   |      |      |   |  |  |  |                                 |              |              |  |
| Other   |      |      |   |  |  |  |                                 |              |              |  |
| Process   |      |      |   |  |  |  |                                 |              |              |  |
| Supplier  |      |      |   |  |  |  |                                 |              |              |  |
| Training  |      |      |   |  |  |  |                                 |              |              |  |
| Unapproved  |      |      |   |  |  |  |                                 |              |              |  |
| FAULT CATEGORY  |      |      |   |  |  |  |                                 |              |              |  |
| <b>Landing Gear</b><br><input type="checkbox"/> Bending<br><input type="checkbox"/> Centre Not Concentric to O/S<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crushed/Crimped<br><input type="checkbox"/> Cuffs<br><input type="checkbox"/> Heat Treat<br><input type="checkbox"/> Inspection Strip in Tube<br><input type="checkbox"/> Ripples in Bend<br><input type="checkbox"/> Torque Waves in Extrusion<br><input type="checkbox"/> Turning Sequence<br><input type="checkbox"/> Wave/Twist in Tube |      |      |   | <b>General</b><br><input type="checkbox"/> Bend<br><input type="checkbox"/> BOM/Route<br><input type="checkbox"/> Broken/Damaged<br><input type="checkbox"/> Burrs<br><input type="checkbox"/> Contamination<br><input type="checkbox"/> Countersink<br><input type="checkbox"/> Cut Too Short<br><input type="checkbox"/> Drill Holes<br><input type="checkbox"/> Drawing<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Folio<br><input type="checkbox"/> Grain<br><input type="checkbox"/> Hardware<br><input type="checkbox"/> Inspection Incomplete<br><input type="checkbox"/> Instructions Incomplete/Unclear<br><input type="checkbox"/> Maintenance<br><input type="checkbox"/> Mislabeled<br><input type="checkbox"/> Misread<br><input type="checkbox"/> Offset<br><input type="checkbox"/> Out of Calibration<br><input type="checkbox"/> Out of Sequence<br><input type="checkbox"/> Outside Dimensions<br><input type="checkbox"/> Ovalized<br><input type="checkbox"/> Over/Under tolerance<br><input type="checkbox"/> Part Incorrect<br><input type="checkbox"/> Part Lost/Missing<br><input type="checkbox"/> Part Moved<br><input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Power Loss/Surge<br><input type="checkbox"/> Other |  |  |                                 |              |              |  |

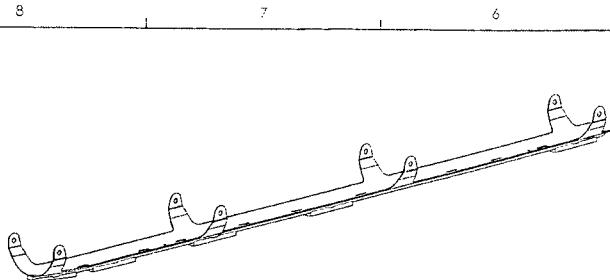
|                        |        |              |             |
|------------------------|--------|--------------|-------------|
| DART AEROSPACE LTD     |        | Work Order:  | 99160       |
| Description: Wearplate |        | Part Number: | D3849-3     |
| Inspection Dwg: D3849  | Rev: D |              | Page 1 of 1 |

### FIRST ARTICLE INSPECTION CHECKLIST

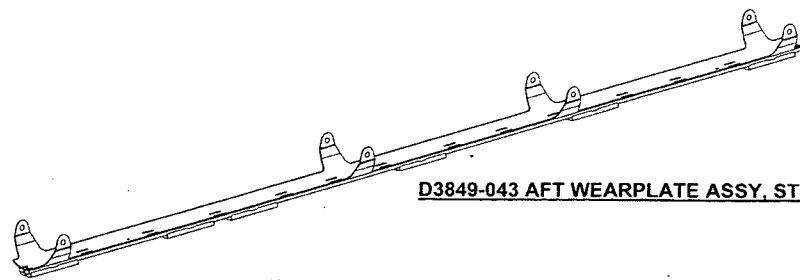
| Drawing Dimension | Tolerance     | Actual Dimension | Accept | Reject | Method of Inspection | Comments  |
|-------------------|---------------|------------------|--------|--------|----------------------|-----------|
| Ø0.188            | +0.005/-0.001 | 0.190"           | -      |        | V                    | Jkmor     |
| Ø0.375            | +0.006/-0.001 | 0.377"           | -      |        | V                    |           |
| 0.88              | +/-0.030      | 0.882"           | -      |        | V                    |           |
| 0.125             | +/-0.010      | 0.127"           | -      |        | V                    |           |
| 2.45              | +/-0.030      | 2.45"            | -      |        | V                    |           |
| 18.712            | +/-0.010      | 18.712"          | -      |        | T                    | Jkmor     |
| 36.629            | +/-0.010      | 36.629"          | -      |        | T                    |           |
| 62.799            | +/-0.010      | 62.799"          | -      |        | T                    |           |
| 2.433             | +/-0.010      | 2.439"           | -      |        | V                    |           |
| 6.642             | +/-0.010      | 6.640"           | -      |        | V                    |           |
| 7.72              | +/-0.030      | 7.709"           | -      |        | V                    |           |
| 5.75              | +/-0.030      | 5.747"           | -      |        | V                    |           |
| 7.00              | +/-0.030      | 7.000"           | -      |        | V                    |           |
| 10.38             | +/-0.030      | 10.38"           | -      |        | V                    | Prod W/ra |
| 15.00             | +/-0.030      | 15.00"           | -      |        | T                    |           |
| 21.00             | +/-0.030      | 21.00"           | -      |        | T                    |           |
| 25.50             | +/-0.030      | 25.50"           | -      |        | T                    |           |
| 30.00             | +/-0.030      | 30.00"           | -      |        | T                    |           |
| 36.00             | +/-0.030      | 36.00"           | -      |        | T                    |           |
| 40.31             | +/-0.030      | 40.31"           | -      |        | T                    |           |
| 44.62             | +/-0.030      | 44.62"           | -      |        | T                    |           |
| 50.37             | +/-0.030      | 50.37"           | -      |        | T                    |           |
| 56.12             | +/-0.030      | 56.12"           | -      |        | T                    |           |
| 58.00             | +/-0.030      | 58.00"           | -      |        | T                    |           |
| 61.75             | +/-0.030      | 61.75"           | -      |        | T                    |           |
| 66.87             | +/-0.030      | 66.87"           | -      |        | T                    |           |
| 0.050             | +/-0.010      | 0.047"           | -      |        | V                    |           |

|              |         |             |         |                       |  |
|--------------|---------|-------------|---------|-----------------------|--|
| Measured by: | JM      | Audited by: | 27      | Preliminary Approval: |  |
| Date:        | 13-5-22 | Date:       | 13-5-22 | Date:                 |  |

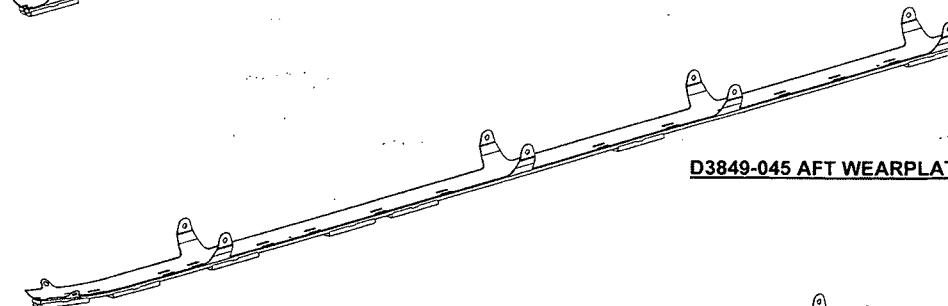
| Rev | Date     | Change                           | Revised by | Approved |
|-----|----------|----------------------------------|------------|----------|
| A   | 09.10.01 | New Issue P/O D3849-043          | KJ         |          |
| B   | 12.11.23 | Dimensions updated per Dwg Rev D | KJ         | M        |



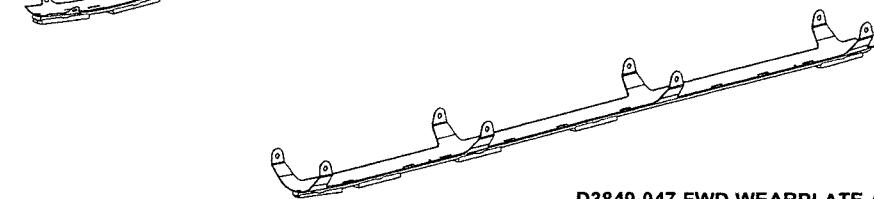
D3849-041 FWD WEARPLATE ASSY, STD GEAR



D3849-043 AFT WEARPLATE ASSY, STD GEAR



D3849-045 AFT WEARPLATE ASSY, FLOAT GEAR

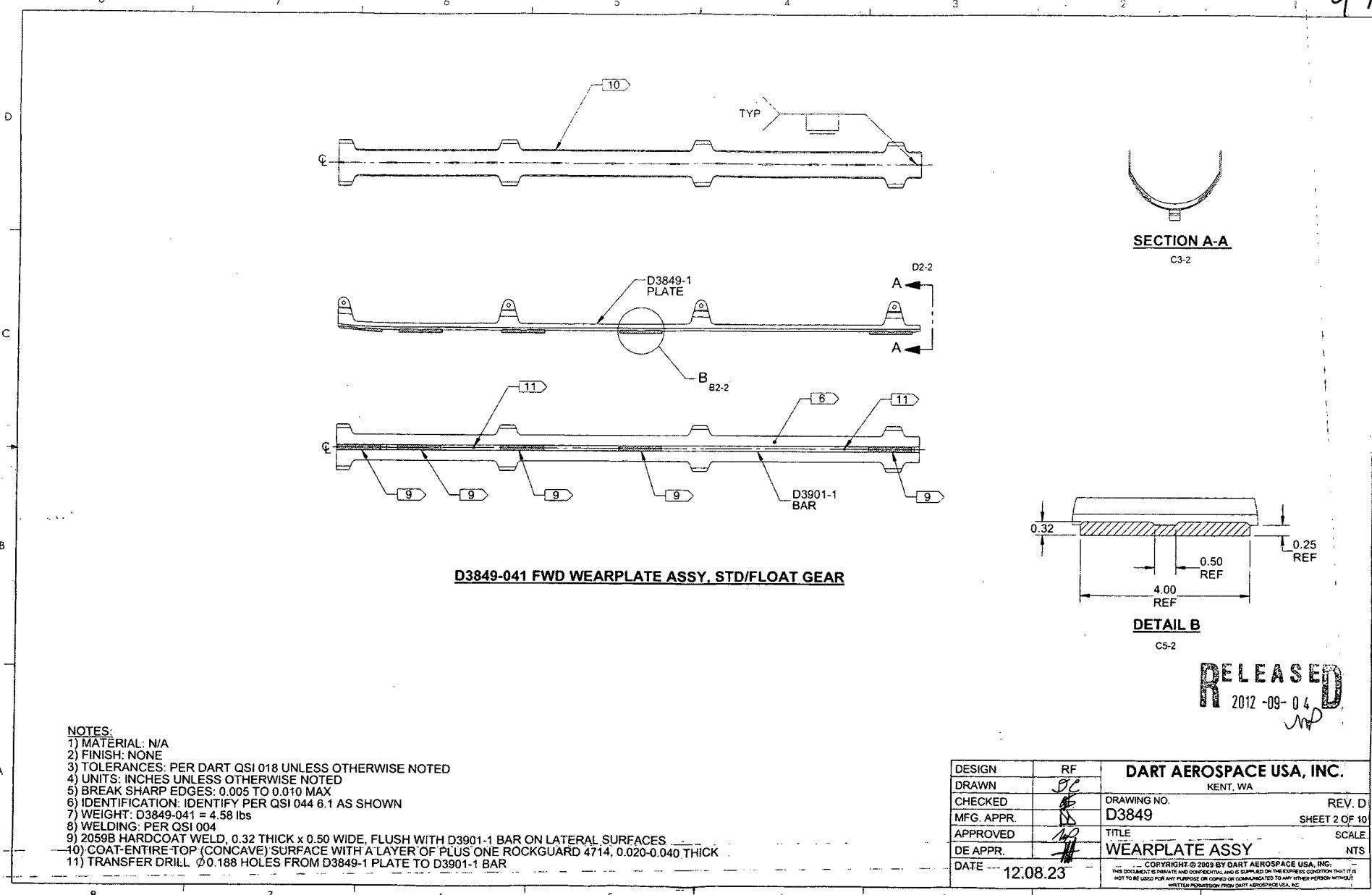


D3849-047 FWD WEARPLATE ASSY, FLOAT GEAR

| ITEM | QTY<br>-041 | QTY<br>-043 | QTY<br>-045 | QTY<br>-047 | P/N       | DESCRIPTION                    |
|------|-------------|-------------|-------------|-------------|-----------|--------------------------------|
| 1    | X           |             |             |             | D3849-041 | FWD WEARPLATE ASSY, STD GEAR   |
| 2    |             | X           |             |             | D3849-043 | AFT WEARPLATE ASSY, STD GEAR   |
| 3    |             |             | X           |             | D3849-045 | AFT WEARPLATE ASSY, FLOAT GEAR |
| 4    |             |             |             | X           | D3849-047 | FWD WEARPLATE ASSY, FLOAT GEAR |
| 11   | 1           |             |             |             | D3849-1   | PLATE                          |
| 12   |             | 1           |             |             | D3849-3   | PLATE                          |
| 13   |             |             | 1           |             | D3849-5   | PLATE                          |
| 14   |             |             |             | 1           | D3849-7   | PLATE                          |
| 15   | 1           |             |             | 1           | D3901-1   | BAR                            |
| 16   |             | 2           |             |             | D3901-3   | BAR                            |
| 17   |             |             | 2           |             | D3901-5   | BAR                            |
| 21   | A/R         | A/R         | A/R         | A/R         | 2059B     | HARDCOAT                       |
| 22   | A/R         | A/R         | A/R         | A/R         | 4714      | PLUS ONE ROCKGUARD             |

99160.MLS  
13-04-02 RELEASED  
2012-09-01

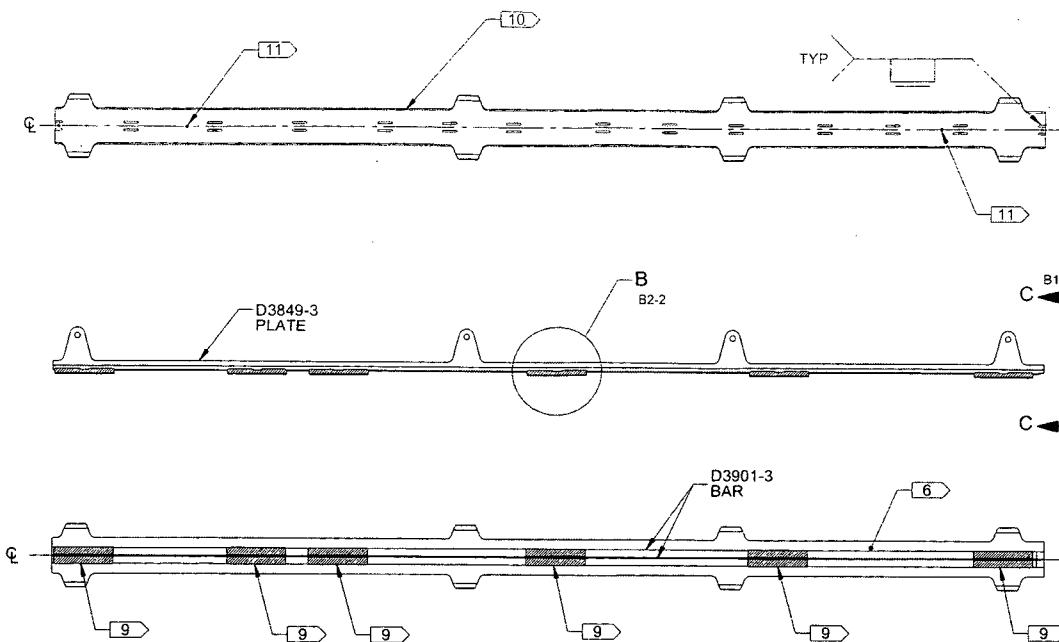
|            |   |   |               |
|------------|---|---|---------------|
| D          | REVISED FLAT PATTERN - CHANGED SLOT LOCATIONS TO MATCH D3901-1/-3/-5 BARS (ZN B6-6, B3-6, B6-7, C2-7, B6-8, B2-8, B7-9, B2-9).  | DC  | 12.08.23      |
| C          | REVISED FLAT PATTERN - CHANGE SLOT LOCATIONS. ADDED DOUBLE SLOTS AND D3901-3/-5 BARS ON -043/-045. UPDATED DETAIL VIEWS. CHANGED WELD DETAILS (ZN B2-2). REMOVED D3848-1/-3/-5/-7 GASKETS. ADD ROCKGUARD COATING. REMOVE FINISH.  | DC  | 12.08.21      |
| B          | REVISED FLAT PATTERN Ø 0.375 WAS SLOT HOLE ON D3849-1/-3/-5/-7 (ZN A4-5, B4-7, B4-8, C2-10, B2-10); ADD D3849-1/-3/-5/-7 (ZN D4-10, A4-1 & B4-5) & D3849-7/-7F (ZN C4-9, A4-9); ADD GASKET (ZN A4-1 & B4-5); Ø 0.375 WAS 0.438 (ZN A3-10); ADD Ø 0.25 & 0.88 (ZN D4-10, D3-10); ADD Ø 0.88 & 0.44 (ZN C3-10 & B3-10); ADD FLAG NOTE (ZN A8-2, C6-2, C3-2, A8-3, C6-3, C3-3, A8-4, C6-4, C2-4); Ø 0.44 WAS 0.36 (ZN B4-7). | RF  | 09.06.30      |
| A          | NEW ISSUE   | RF  | 09.03.30      |
| REV.       | DESCRIPTION   | BY  | DATE          |
| DESIGN     | RF  | DART AEROSPACE USA, INC.  |               |
| DRAWN      | DC  | KENT, WA  |               |
| CHECKED    | RS  | DRAWING NO.   | REV. D        |
| MFG. APPR. | RS  | D3849   | SHEET 1 OF 10 |
| APPROVED   | RS  | TITLE   | SCALE         |
| DE APPR.   | RS  | WEARPLATE ASSY  | NTS           |
| DATE       | 12.08.23  | COPYRIGHT © 2009-01 DART AEROSPACE USA, INC.<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS<br>NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT<br>WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. |               |



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|------------|----------|--------------------------|
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| DRAWN      | DC       | KENT, WA                 |
| CHECKED    | RE       | DRAWING NO.              |
| MFG. APPR. | RE       | REV. D                   |
| APPROVED   | RE       | D3849                    |
| DE APPR.   | RE       | SHEET 2 OF 10            |
| DATE       | 12.08.23 | TITLE                    |
|            |          | WEARPLATE ASSY           |
|            |          | NTS                      |

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09160



D3849-043 AFT WEARPLATE ASSY, STD GEAR

## NOTES:

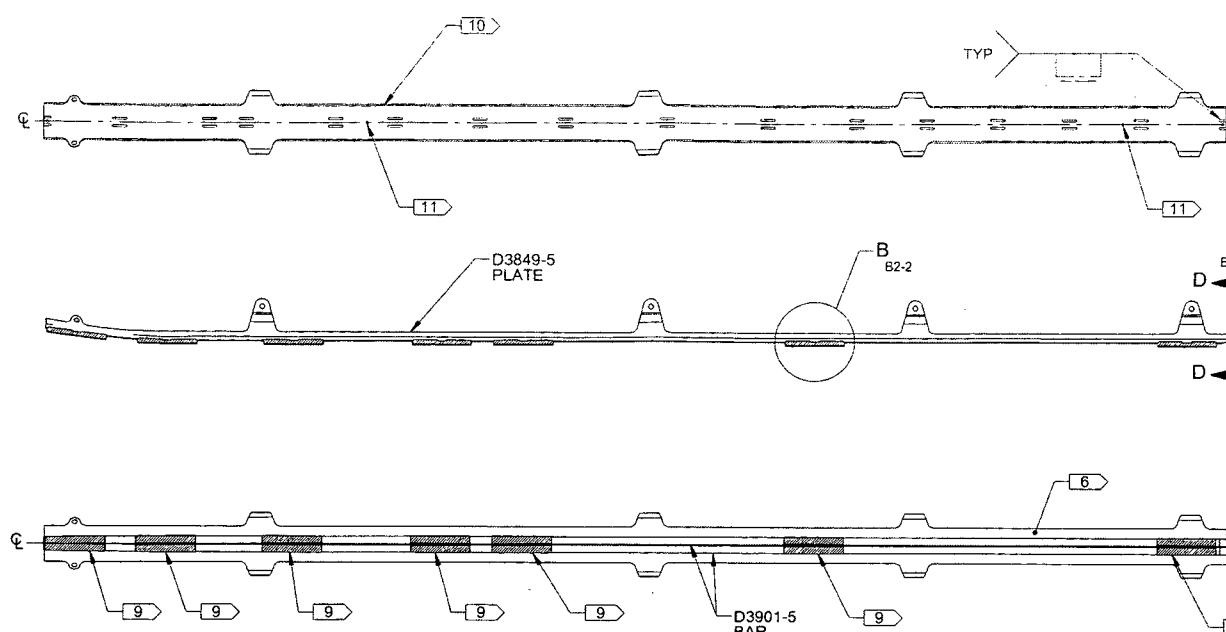
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1 AS SHOWN
- 7) WEIGHT: D3849-043 = 7.66 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 0.32 THICK x 0.50 WIDE, FLUSH WITH D3901-3 BARS ON LATERAL SURFACES
- 10) COAT ENTIRE TOP (CONCAVE) SURFACE WITH A LAYER OF PLUS ONE ROCKGUARD 4714, 0.020-0.040 THICK
- 11) TRANSFER DRILL Ø0.188 HOLES FROM D3849-3 PLATE TO D3901-3 BARS

|            |          |                          |
|------------|----------|--------------------------|
| DESIGN     | RF       | DART AEROSPACE USA, INC. |
| DRAWN      | DC       | KENT, WA                 |
| CHECKED    |          | DRAWING NO.              |
| MFG. APPR. |          | REV. D                   |
| APPROVED   |          | D3849                    |
| DE APPR.   |          | SHEET 3 OF 10            |
| DATE       | 12.08.23 | TITLE                    |
|            |          | WEARPLATE ASSY           |
|            |          | SCALE: NTS               |

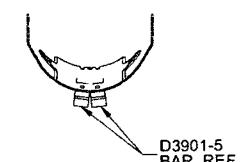
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SECTION C-C

C3-3  
RELEASED  
2012-09-04  
MP



D3849-045 AFT WEARPLATE ASSY, FLOAT GEAR

RELEASED  
R 2012-09-04

SECTION D-D

C2-4

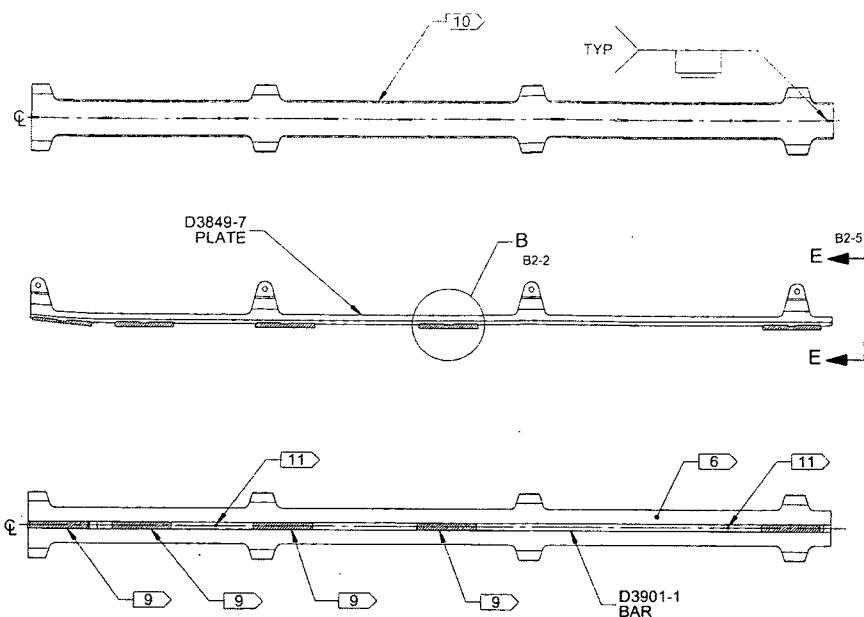
## NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES. 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1 AS SHOWN
- 7) WEIGHT: D3849-045 = 8.93 lbs
- 8) WELDING: PER QSI 004
- 9) 20598 HARDCOAT WELD, 0.32 THICK x 0.50 WIDE, FLUSH WITH D3849-5 BARS ON LATERAL SURFACES
- 10) COAT ENTIRE TOP (CONCAVE) SURFACE WITH A LAYER OF PLUS ONE ROCKGUARD 4714, 0.020-0.040 THICK
- 11) TRANSFER DRILL Ø0.188 HOLES FROM D3849-5 PLATE TO D3901-5 BARS

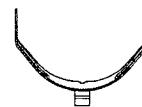
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| DESIGN     | RF       | DART AEROSPACE USA, INC. |
| DRAWN      | SC       | KENT, WA                 |
| CHECKED    | BB       | DRAWING NO.              |
| MFG. APPR. | AA       | REV. D                   |
| APPROVED   | MM       | D3849                    |
| DE APPR.   | MM       | SHEET 4 OF 10            |
| DATE       | 12.08.23 | TITLE                    |
|            |          | WEARPLATE ASSY           |
|            |          | NTS                      |

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99160



D3849-047 FWD WEARPLATE ASSY, FLOAT GEAR



SECTION E-E

C3-5

RELEASED  
2012-09-04

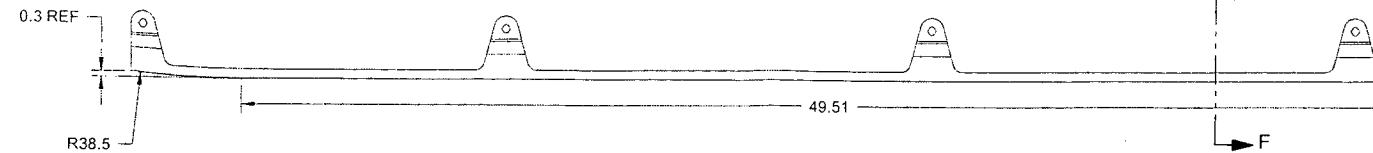
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1 AS SHOWN
- 7) WEIGHT: D3849-047 = 4.60 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 0.32 THICK x 0.50 WIDE, FLUSH WITH D3901-1 BAR ON LATERAL SURFACES
- 10) COAT ENTIRE TOP (CONCAVE) SURFACE WITH A LAYER OF PLUS ONE ROCKGUARD 4714, 0.020-0.040 THICK
- 11) TRANSFER DRILL. Ø0.188 HOLES FROM D3849-7 PLATE TO D3901-1 BAR

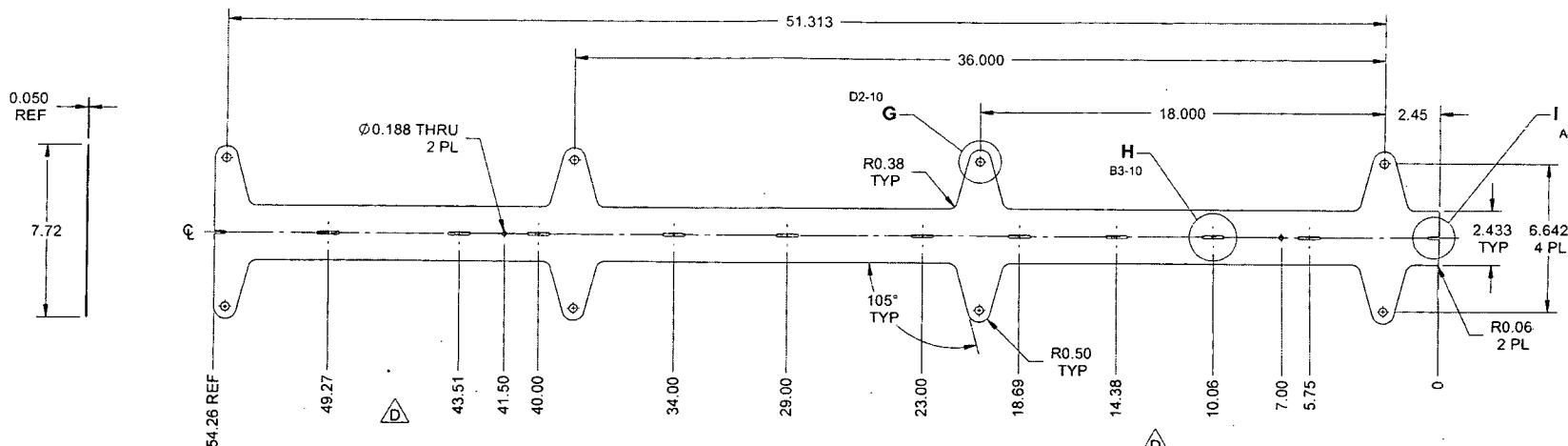
| DESIGN     | RF       | DART AEROSPACE USA, INC. |
|------------|----------|--------------------------|
| DRAWN      | DC       | KENT, WA                 |
| CHECKED    | AS       | DRAWING NO.              |
| MFG. APPR. | AS       | D3849                    |
| APPROVED   | AS       | REV. D                   |
| DE APPR.   | AS       | SHEET 5 OF 10            |
| DATE       | 12.08.23 | TITLE                    |
|            |          | WEARPLATE ASSY           |
|            |          | NTS                      |

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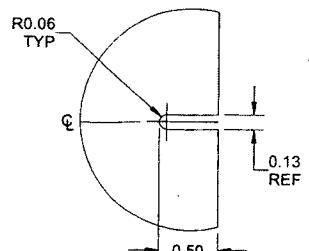
99160



**D3849-1 PLATE**  
(MAKE FROM D3849-1F)



**D3849-1F FLAT PATTERN**



#### DETAIL 1

**NOTES:**  
1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET PER AMS 5513 OR 5524  
OR ASTM A240 OR ASME SA240  
18 GAUGE 0.050 THICK, (REF. DART SPEC. M304S18GA)  
2) FINISH: NONE  
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) UNITS: INCHES UNLESS OTHERWISE NOTED  
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
6) IDENTIFICATION: NONE  
7) WEIGHT: 2.30 lbs

|            |          |                          |               |
|------------|----------|--------------------------|---------------|
| DESIGN     | RF       | DART AEROSPACE USA, INC. |               |
| DRAWN      | DC       | KENT, WA                 |               |
| CHECKED    | BS       | DRAWING NO.              | REV. D        |
| MFG. APPR. | DS       | D3849                    | SHEET 6 OF 10 |
| APPROVED   | WJ       | TITLE                    |               |
| DE APPR.   | HS       | SCALE                    |               |
| DATE       | 12.08.23 | WEARPLATE ASSY NTS       |               |

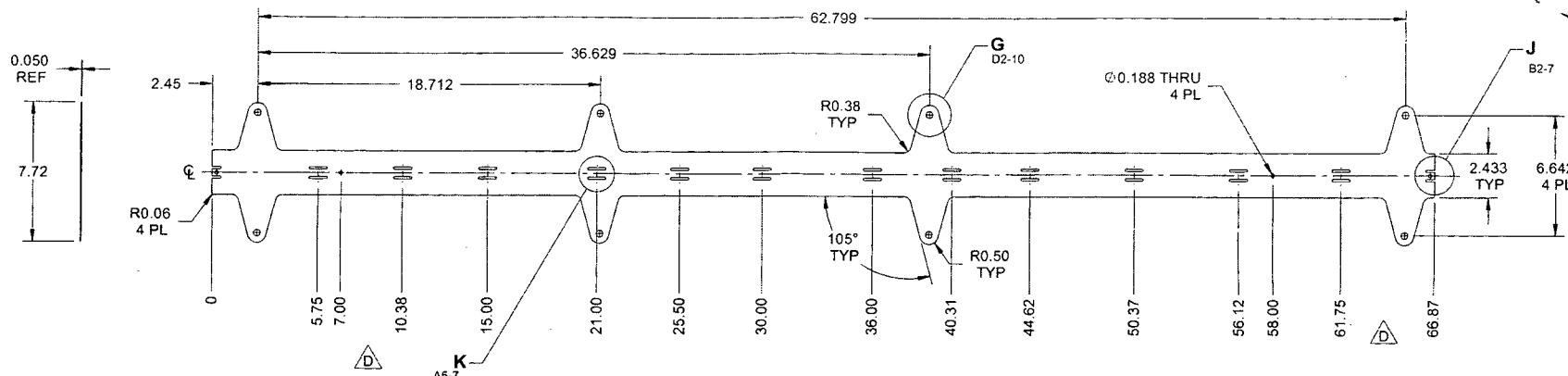
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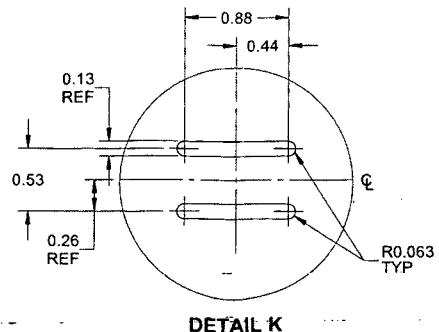
99160

8 7 6 5 4 3 2 1

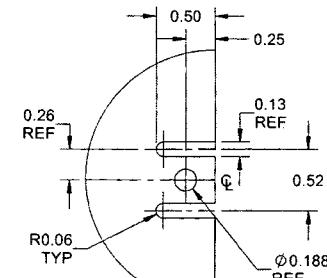
**D3849-3 PLATE**  
(MAKE FROM D3849-3F)



**D3849-3F FLAT PATTERN**



**DETAIL J**



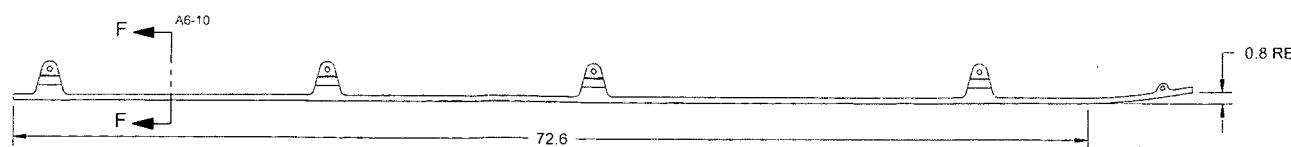
**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET PER AMS 5513 OR 5524 OR ASTM A240 OR ASME SA240 18 GAUGE 0.050 THICK, (REF. DART SPEC. M304S18GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.74 lbs

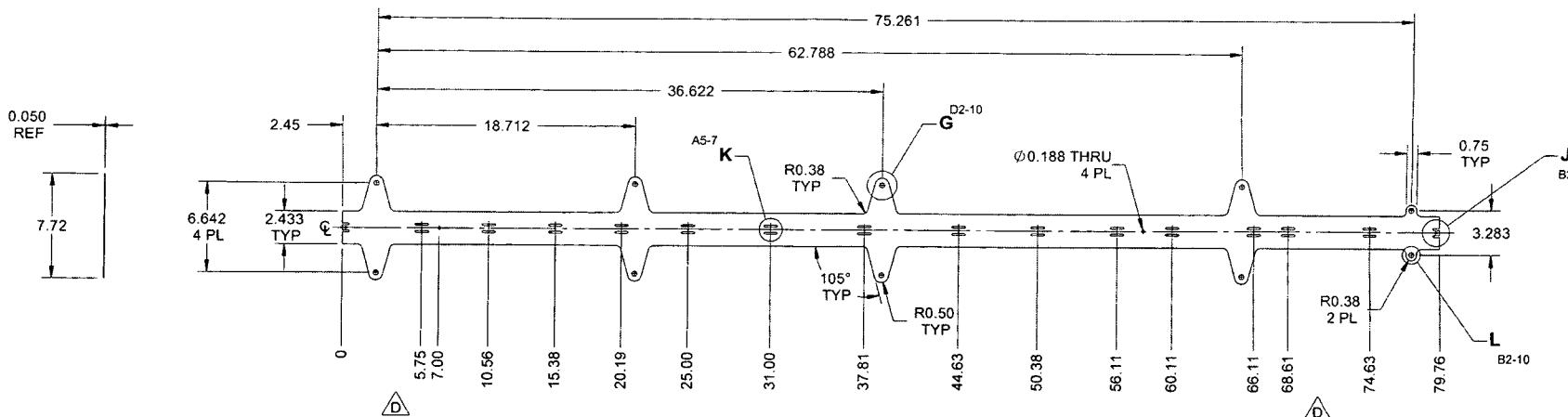
|            |          |                                 |
|------------|----------|---------------------------------|
| DESIGN     | RF       | <b>DART AEROSPACE USA, INC.</b> |
| DRAWN      | PL       | KENT, WA                        |
| CHECKED    | AS       | REV. D                          |
| MFG. APPR. | NA       | DRAWING NO.                     |
| APPROVED   | MA       | D3849                           |
| DE APPR.   | MA       | SHEET 7 OF 10                   |
| DATE       | 12.08.23 | TITLE                           |
|            |          | WEARPLATE ASSY                  |
|            |          | SCALE                           |
|            |          | NTS                             |

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RELEASED  
2012-09-04  
WMS



**D3849-5 PLATE**  
(MAKE FROM D3849-5F)



**D3849-5F FLAT PATTERN**

RELEASED  
2012-09-04  
VW

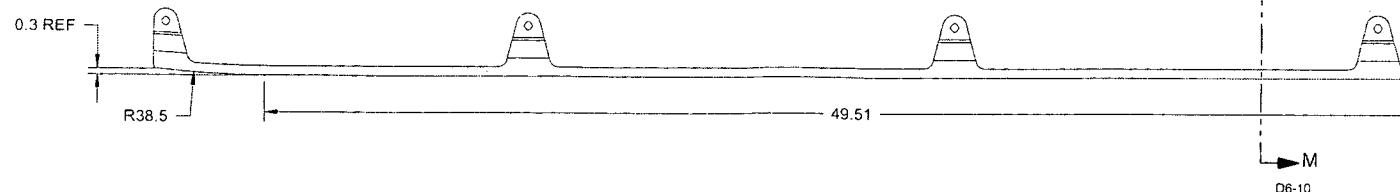
**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET PER AMS 5513 OR 5524  
OR ASTM A240 OR ASME SA240  
18 GAUGE 0.050 THICK. (REF. DART SPEC. M304S18GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 3.17 lbs

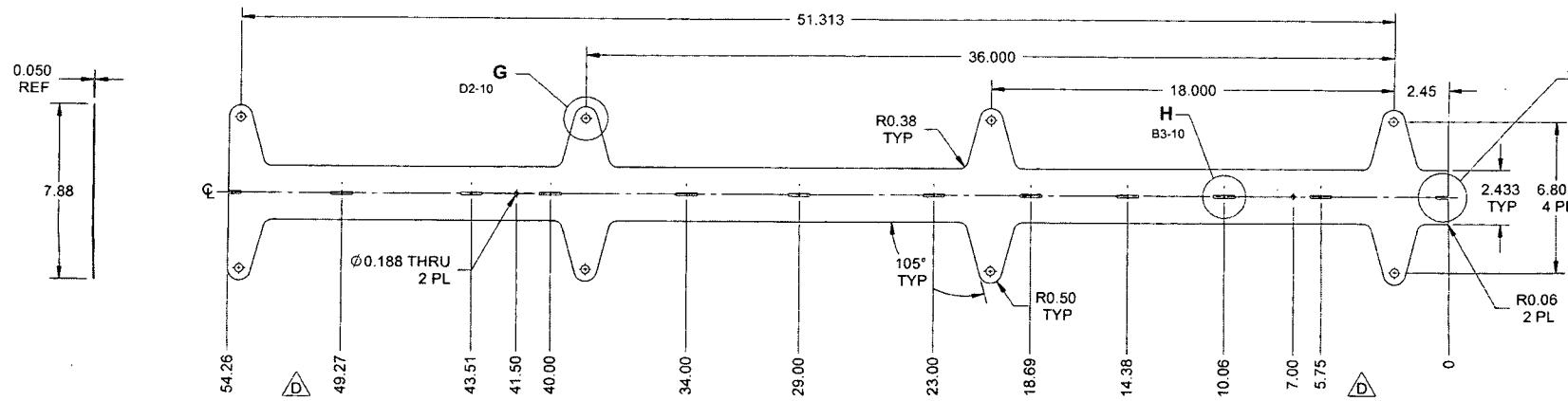
|            |          |                          |
|------------|----------|--------------------------|
| DESIGN     | RF       | DART AEROSPACE USA, INC. |
| DRAWN      | PC       | KENT, WA                 |
| CHECKED    | AS       | REV. D                   |
| MFG. APPR. | AS       | D3849                    |
| APPROVED   | AS       | SHEET 8 OF 10            |
| DE APPR.   | AS       | TITLE                    |
| DATE       | 12.08.23 | SCALE                    |
|            |          | WEARPLATE ASSY           |
|            |          | NTS                      |

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99160



**D3849-7 PLATE**  
(MAKE FROM D3849-7F)



**D3849-7F FLAT PATTERN**

**NOTES:**

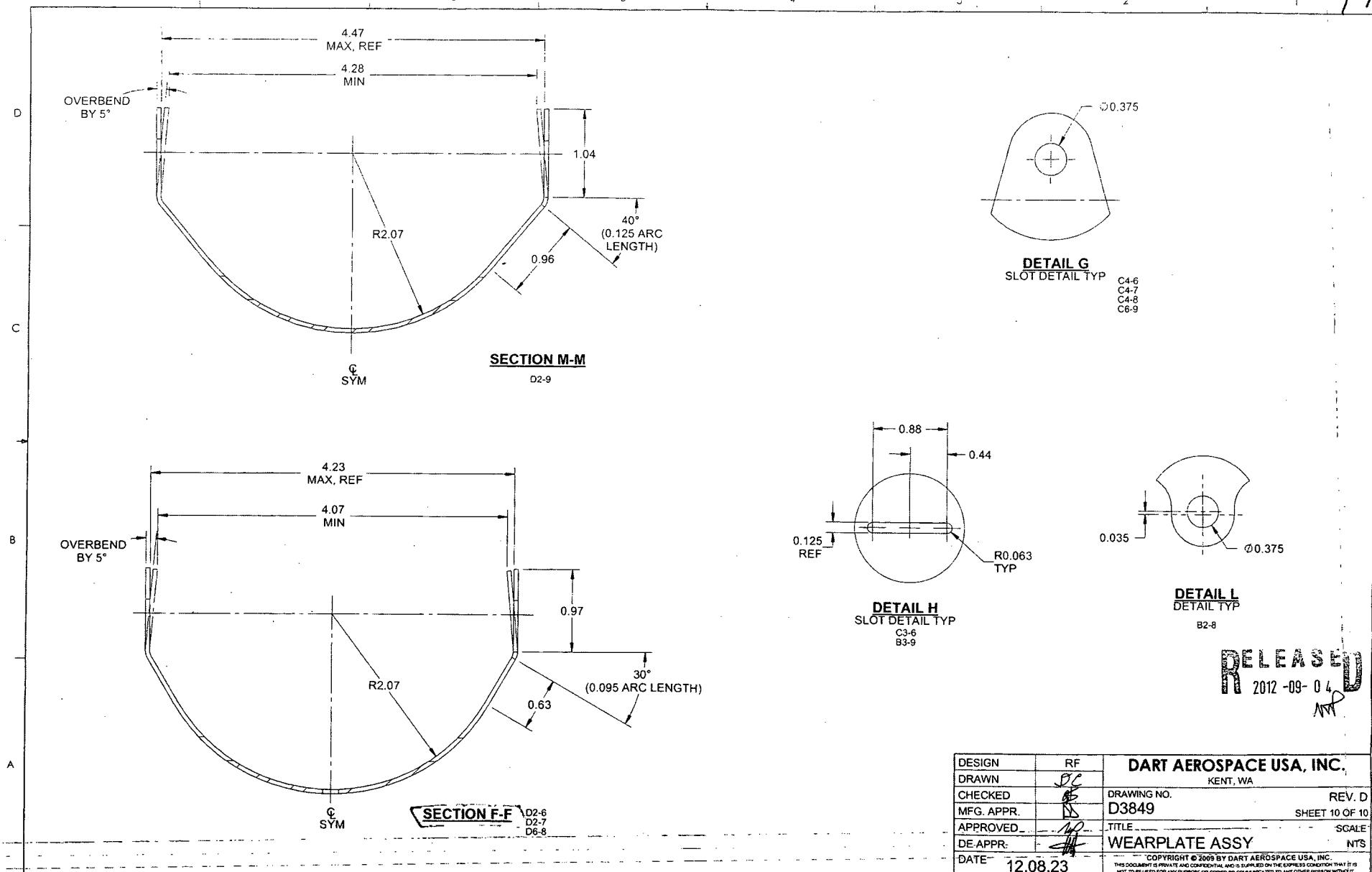
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET PER AMS 5513 OR 5524  
OR ASTM A240 OR ASME SA240  
18 GAUGE 0.050 THICK, (REF. DART SPEC. M304S18GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.32 lbs

|            |          |                                 |
|------------|----------|---------------------------------|
| DESIGN     | RF       | <b>DART AEROSPACE USA, INC.</b> |
| DRAWN      | DC       | KENT, WA                        |
| CHECKED    | AB       | DRAWING NO.                     |
| MFG. APPR. | DA       | REV. D                          |
| APPROVED   | 149      | SHEET 9 OF 10                   |
| DE APPR.   | 149      | TITLE                           |
|            |          | WEARPLATE ASSY                  |
| DATE       | 12.08.23 | SCALE                           |
|            |          | NTS                             |

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2012-09-04

99160



|            |          |                          |
|------------|----------|--------------------------|
| DESIGN     | RF       | DART AEROSPACE USA, INC. |
| DRAWN      | PC       | KENT, WA                 |
| CHECKED    | AS       | DRAWING NO. REV. D       |
| MFG. APPR. | DS       | D3849 SHEET 10 OF 10     |
| APPROVED   | MM       | TITLE                    |
| DE-APPR.   | MM       | SCALE                    |
| DATE       | 12.08.23 | WEARPLATE ASSY NTS       |

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